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Economic Sanctions and Leader Survival, 1945-2006*

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Our study joins recent scholarship that examines the political impact of economic sanctions on targeted societies. While some studies find that sanctions destabilize the incumbent leadership of targeted countries, others reveal no relationship between sanctions and political survival. In this study, we seek to clarify the effect of economic sanctions on leader survival by identifying and addressing the contrasting and conditional expectations for the political effects of sanctions underspecified in previous research. We also provide the most comprehensive statistical test, for the 1945 to 2006 period. Our analysis shows that economic sanctions help targeted autocratic leaders to extend their stay in power. However, sanctions are found to exert no discernable political effects to targeted leaders in democracies.

Keywords: economic sanctions, leader survival, political regime, statistical interaction
Headings: Sanctions, Leader Survival, and Regime Type

1. INTRODUCTION

Our study examines how economic sanctions affect domestic politics in targeted societies. Sanctions have been known as ineffective but expensive statecraft to coerce foreign countries' policies and behaviors (Galtung 1967; Hufbauer, Schott, and Elliott 1990; Pape 1997).

Recent studies have shifted the focus from immediate policy concession to leadership destabilization in assessing the effectiveness of sanctions. They examine how economic sanctions affect the political survival of targeted leaders. For example, Marinov (2005) finds that economic sanctions reduce the spell that national leaders stay in political power. This leadership-destabilizing effect is much greater for democratic target countries. He reasons that democratic accountability is the key to making the political tenure of leaders more fragile under external threat and pressure. The electoral institutions and resulting democratic accountability provide domestic publics with the ability to hold their leaders answerable and responsible for policy outcomes and replace them for unsatisfactory policy outcomes (Reiter and Stam 2002). With respect to nondemocratic regimes, Escribà-Folch and Wright (2010) examine the conditions under which sanctions jeopardize leader survival in autocracies. Differentiating autocracies into personalist, single-party, and military regimes, they find that sanctions increase the probability of leader turnover in personalist regimes because leaders in personalist regimes rely upon on external sources of revenue for regime stability, such as foreign aid and trade taxes.

Some follow-up studies, however, provide contrasting evidence. For example, in Park and Bali's (2017) investigation on the effects of external threats on the political survival of national leaders, economic sanctions are among the insignificant external threats, along with full-scale interstate wars. Rather, their analysis shows that international terrorism and

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economic growth are two most significant and robust factors that influence the tenure of political leaders. Licht (2017) focuses on the possibility that different leaders have different *ex ante* baseline risks of losing power. Regime type, conflict history, and alliance formation are regarded as the main sources of different baseline risks, which in turn make leaders have different baseline probabilities of receiving sanctions. Using a matching technique, Licht shows that sanctions are largely ineffective in destabilizing leaders regardless of regime types, whether autocracies or democracies.

As such, the evidence is inconsistent in existing studies. Our study seeks to clarify the relationship between economic sanctions and leader survival by identifying and addressing the following three critical points relatively underspecified in the previous research. First, our theoretical discussion incorporates the possibility that sanctions generate a "rally around the flag effect" in target states, increasing popular support for national leaders (Galtung 1967; Rowe 2001). If this rally effect works simultaneously with the negative power-destabilizing effect, sanctions end up having an insignificant effect in statistical analysis, since the positive and negative effects offset each other.

Second, we explore the possible interaction between economic sanctions and regime type in affecting leader tenure, which is analyzed in previous research, but only in a tentative manner. We offer an extended discussion of why sanctions affect democrats and autocrats differently, if they really do. Our interactive analysis scrutinizes how much the effect of sanctions substantively differs across different regime types. Third, our empirical analysis is done for the data with the most extended temporal domain from 1945 to 2006, for which both the information on sanctions and the information on leader tenure are jointly available.

Another critical point underspecified in the extant studies regards the possible selection effect that sender countries choose target countries whose leadership is likely to be damaged greatly (Marinov 2005; Escribà-Folch and Wright 2010). If this is the case, statistical analyses are prone to produce biased and inflated estimates for the leadership-destabilizing effect of economic sanctions. In the event that our statistical analysis produces a significant effect for leader removal, we should then identify and address the possible statistical complication associated with selection bias by employing an instrumental variable approach in an augmented regression. However, our statistical test does not produce a significant effect for leader removal, as reported below in our result section.

2. WHY AND HOW ECONOMIC SANCTIONS AFFECT LEADER SURVIVAL

In this section, we identify diverging expectations about how and why economic sanctions possibly affect leaders' political wellbeing in targeted countries. We draw various hypotheses corresponding to each expectation. Before discussing the arguments we will test, we first provide a brief overview of economic sanctions and possible motivations a sending state have to use sanctions against a target state.

As with other research (e.g., Marinov 2005), we adopt Hufbauer, Schott, and Elliott's (1990, 2) definition of sanctions as "deliberate, government-inspired withdrawal, or threat of withdrawal, of customary trade or financial relations" in order to "achieve foreign policy goals." Positive economic inducements are conceptually distinct from sanctions, which are punishment (Hufbauer, Schott, and Elliott 1990). States that impose sanctions may do so for a variety of reasons. First, sanctions may be used to extract some concession from the target government, perhaps ceasing to participate in an undesirable activity. Second, sanctions may

succeed in destabilizing the target leader (Marinov 2005), a claim which will be investigated more fully below. Third, sending countries may themselves derive some benefit from imposing sanctions on a target country, as Whang (2011) notes from his study of the use of sanctions by the United States that presidents receive a boost to their approval ratings by imposing sanctions. Thus, in addition to potentially destabilizing an adversary, sanctions may also be able to bolster a leader's own hold on power. If more than one objective can be met at the same time, the better. We now turn to a more thorough exploration of existing research on impact of sanctions on leader survival and the testable claims that can be derived from the literature.

The first expectation we identify is that economic sanctions destabilize targeted leadership. The logic underlying this proposition is straightforward. Sender countries aim to induce policy changes from target countries by restricting aid, imports and exports. Sanctions, if imposed properly, can hurt the national economy of targeted countries and cause significant damage to the welfare of targeted populations. It is well documented in the literature that economic performance is a most important standard for leadership evaluation, whether in democracies or in autocracies (Lewis-Beck and Stegmaier 2000; Leigh 2009; Miller 2012). The logic says that whoever fails to secure the nation from external pressure and its material wellbeing will lose popular support and political legitimacy. The discussion produces the following hypothesis:

Hypothesis 1. When sanctions are imposed upon a country, the chance that its incumbent leader loses her political power increases.

Although Hypothesis 1 is our main workhorse hypothesis, we acknowledge that it is possible to logically draw several other alterative hypotheses against it. We address these with the following rationales. The first possible alterative relationship between sanctions and political survival is that economic sanctions create a rally-round-the-flag-effect and boost popular support for targeted leaders. Rather than hurting the target leadership, foreign-imposed sanctions will be exploited as a catalyst for nationalism and leadership stabilization. Whang (2011) explores how the use of sanctions can bolster leaders' hold on power in sending countries, but the argument in reverse can help explain why leaders in target countries might also receive a boost. If leaders are able to convince citizens that they are being unfairly targeted by the sending country, and the leader employs rhetoric against the sanctions, their domestic audience may view the leader as displaying strong leadership in the face of long odds. Leaders are able to depict sanctions as external threats to national unity, and citizens attribute their economic suffering to sender countries (Galtung 1967). Due to the increased nationalism, target societies willingly accept considerable economic damages rather than impair their national dignity (Pape 1997). External economic pressure has been found to exert such unintended side effects in nondemocratic, weak, and fractured societies like Rhodesia, North Korea, North Vietnam, and Iraq (Galtung 1967; Pape 1997). Similar evidence is found in advanced democracies like Israel, US, and UK. In times of external crisis, leaders can exploit the situation to make citizens rally around their leadership and blame foreign enemies (Chapman and Reiter 2004; Berrebi and Klor 2008; Berinsky 2009; Gibler 2010). Citizens project charisma and fortified leadership images onto their leaders and even become willing to sacrifice civil liberties for the sake of national security (Davis 2007; Merolla and Zechmeister 2009). Therefore, leaders in both democracies and autocracies can manipulate foreign pressure to strengthen their hold onto power, increasing the prospect

of remaining in power. This rally mechanism operates in contrast to the economic harm mechanism discussed in the context of Hypothesis 1. Thus, there are competing arguments about the impact of sanctions on leader survival in office. Because both are plausible and have received support in the literature, it is important to take both into consideration. By explicitly acknowledging the possibility that sanctions may destabilize leaders as well as the possibility that sanctions may bolster their hold on power, we can empirically test which mechanism seems to be operable. Thus, we include Hypothesis 2 as a competing hypothesis, a direct counter to the arguments made in Hypothesis 1.

Hypothesis 2. Economic sanctions help extend the spell of time that leaders stay in power.

The competing nature of Hypotheses 1 and 2 raises a third possibility, namely that the positive and negative impacts of sanctions may both work simultaneously, offsetting the other's effects. If both mechanisms are operable and the magnitude of each effect is similar, their summed effect should be close to zero.

In addition, this proposed null effect is plausible in terms of selection effects that senders choose only fragile targets that are likely destabilized by sanctions. Imposing economic sanctions is often expensive and costly to senders as well as targets (Tharoor 2014). Hence, senders need to be deliberate in choosing when, how, and whom to impose economic pressure on to minimize possible backlash while achieving their intended outcomes. If selection calculus is operational, an estimated significant effect for sanctions does not reflect its true net effect. Therefore, a selection model properly addressing the selection bias will produce a null finding for economic sanctions, even though a regular regression estimation produces a significant tenure-reducing effect for economic sanctions. However, if a regular regression estimation produces a null result for the effect of economic sanction in the first model, the selection calculus is not a concern. In that case, we do not need to consider a selection model in our empirical probe.

Hypothesis 3. Economic sanctions do not have an independent net effect on the political survival of leaders.

The fourth expectation we discuss regards a possible interaction of economic sanctions and regime type in affecting the political survival of leaders: the presumed destabilizing effect of economic sanctions is contingent upon the regime types of target countries. Scholars have suggested that economic sanctions effect leadership destabilization only in democracies. Whereas autocrats ground their political support on relatively small sizes of winning coalitions, democrats bear higher levels of political accountability to a wider range of constituencies (Bueno de Mesquita et al. 2003). Electoral institutions in democracies facilitate leadership removal and replacement for general policy dissatisfactions (Marinov 2005). When sanctions imposed upon a country cause severe damage to its general economy, it should dissatisfy a large proportion of the populace. The opposition parties will be willing to take it as political leverage to compete against the incumbent party (Peksen and Drury 2010).

By contrast, autocrats are not likely to suffer grave political costs from the general economic damages caused by foreign-imposed sanctions. This is because the political survival of autocrats is a function of appeasing relatively a small number of regime insiders (Bueno de Mesquita et al. 2003). The general populace at large is underrepresented,

marginalized, and estranged from the prevailing political processes (Park and Bali 2017). Another reason is that economic sanctions increase already better positioned autocrats' ability to extract rents and thus strengthen their hold onto power (Lektzian and Souva 2007). Sanctions, by definition, restrict exports from and imports to targets, resulting in price distortions and widening a window of opportunities to domestic producers and smugglers for excessive profits. Autocrats, who exercise greater control over the domestic economy than democrats, are able to selectively connive at smuggling activities and grant domestic contracts to particular groups in exchange for economic rents and political loyalty (Kaempfer, Lowenberg, and Mertens 2004). In addition, thanks to the fewer political constraints and greater economic control that they face, autocrats are better positioned to counter the regime-destabilizing effect of economic sanctions by manipulating the national economic conditions and pursuing predatory policies in the way that benefit regime supporters and weaken rival groups (Bolks and Al-Sowayel 2000; Allen 2008; Peksen and Hultman 2017). These reasons all suggest that economic sanctions do not cause leadership destabilization in autocracies. Rather, sanctions can generate leadership-enhancing effects for autocrat incumbents, helping them stay longer in power.

Hypothesis 4. Sanctions do not exert a leadership-destabilizing effect, but rather a leadership-enhancing effect for autocratic targets to extend their tenure in political power.

Some of these multiple expectations regarding the effect of sanctions on political survival are cross-nationally tested for multiple years in previous studies (Marinov 2005; Lektzian and Souva 2007; Escribà-Folch and Wright 2010; Licht 2017; Park and Bali 2017). However, none considers all of these theoretical possibilities together in one unified study. Tests in past literature have often been done indirectly and non-comprehensively. By explicitly testing the competing claims that exist in the literature about the effects of economic sanctions on leaders' survival in office using a longer temporal span across a larger number of countries, we are able to more definitively identify the nature of the relationship. We also test additional hypotheses about the potentially countervailing effects of sanctions and the possibility that some regimes are more vulnerable to the impact of sanctions than others. Across all these tests, some of which are new developments in the literature, we offer a more comprehensive test of a longer temporal and geographic span.

3. DATA, MEASUREMENT, AND METHODOLOGY

Our dataset covers 176 countries for the period, 1945-2006.[1] The temporal range is determined by the joint availability of our main dependent and independent variables, leader removal and economic sanctions.

Our dependent variable is leader removal, coded as a 1 if a leader is removed in a given country-year, and as a 0 otherwise. Right-censored cases, which include death, retirement

[1] However, 16 of the total 176 countries in our data dropped out of our conditional fixed effects logit analysis due to all positive or all negative outcomes. Including these 16 countries, we repeated our analysis without fixed effects, with unconditional logit, for all 176 countries. The results did not differ from those reported in the result section below.

due to ill health, and removal due to foreign overthrow, are excluded in our analysis. We obtain the information about how leaders left office from the Archigos data set collected by Goemans, Gleditsch, and Chiozza (2009). This data set includes information on the conditions under which leaders come into and are removed from power from 1875-2015.[2]

Our primary independent variable is economic sanctions. We code economic sanctions dichotomously, with a value of 1 either when a threat of economic sanctions was made against a country or when economic sanctions were actually imposed. We gain the data on economic sanctions come from the Threat and Imposition of Economic Sanctions (TIES) project (Morgan, Bapat, and Kobayashi 2014).[3] Then, in a separate model, we distinguish threat and actual imposition of economic sanctions. Three scenarios are possible with regard to sanctions: (1) sanctions are threatened but never actually imposed; (2) sanctions are imposed without any threat made ahead; (3) both threat and actual imposition of sanctions are made. This creates a dummy variable of four categories, (1) threat only, (2) imposition only, (3) threat and sanctions, and (4) no threat and no sanctions. The category of no threat and no sanctions serves as the reference point. This multi-categorical dummy allows us to address the problem that an actual imposition of sanctions may not be effective, especially after threat of sanctions, when targeted leaders choose to ignore the threat and prepare for the actual imposition. Also, the case in which only threat of sanctions is made without an actual imposition may indicate that sanctions are already effective with the threat only and there is no need to make an actual imposition.

Additional independent variables control for other factors known to impact leaders' tenure in office. These variables can be divided into two categories: forms of political violence, and state attributes. We control for civil war and militarized interstate disputes (MIDs).[4] Civil war and MID data come from the Correlates of War Project (Sarkees and Wayman 2010; Palmer et al. forthcoming).[5] Civil war is coded 1 if battle deaths reach at least 1,000 in a given country-year, and 0 otherwise. MID is coded 1 if a state was involved in a MID in a given country-year, and 0 otherwise.

In terms of state characteristics, we include a multitude of factors known to affect the risk of a leader being removed from office. We include three variables measuring a state's material and economic strength. First, we measure the GDP per capita and economic growth rate. Growth rate is measured as the rate of change in GDP per capita from year t-1 to year t. Second, for GDP per capita and growth rate, we use an update to Gleditsch's (2002) GDP data.[6] Third, we measure a state's material capability using the Correlates of War Project's Composite Index of National Capability (CINC) data (Singer 1988). Next, we control for a country's regime type. Degree of democracy or autocracy can influence states' interactions with other states, and thus have a bearing on whether they are the targets of sanctions (Park 2013). Moreover, regime type can impact the likelihood of a leader being removed from power (Park and Bali 2017). We use the polity2 score from the Polity IV dataset (Marshall, Jaggers, and Gurr 2018) to measure democracy. The polity2 score is a 21-point scale from

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[2] The Archigos data are available at https://www.rochester.edu/college/faculty/hgoemans/data.htm.

[3] The TIES data are available at http://sanctions.web.unc.edu.

[4] We tried to include a dummy for interstate war from the COW project Interstate War data. However, this dummy is automatically omitted from our model due to collinearity when we estimate logit regression in Stata 15.

[5] The COW data are available at the project homepage, http://www.correlatesofwar.org.

[6] These data are available at http://ksgleditsch.com/exptradegdp.html.

-10 (full autocracy) to +10 (full democracy). Finally, we control for leaders' age, as they may be more likely to lose office as they age.

Because our dependent variable is binary and our sample has a time-series cross-sectional format, we account for the possibility of temporal dependence and heteroscedasticity (Beck, Katz, and Tucker 1998) by using a counter for a leader's years in office as well as the square and cube of that counter (Carter and Signorino 2010). We utilize logit regression with Huber/White robust standard errors (Beck, Katz, and Tucker 1998). We estimate our logit models with country and year fixed effects to capture the effects of unobserved differences between countries and the influence of time-related shocks across years. We lag all the independent variables by one year to avoid the possible endogeneity that the values of the independent variables are affected by the values of the dependent variable.

3. RESULTS

Table 1 contains the information on the descriptive statistics of our dependent, independent, and control variables, such as mean, standard deviation, minimum and maximum, based on the full models reported below in Table 3.

In Table 2, we test the relationship between economic sanctions and leader removal without controlling for other covariates' effects, except for the time-related controls to account for the possible temporal dependence of our time-series cross-sectional data. This succinct model specification is in line with Achen's (2002) ART (a rule of three). This approach also allows us to have the most extended time frame, 1945-2006, and avoid the possible statistical complications such as collinearity and post-treatment bias (Ray 2005; King 2010). In Model 1, we measure economic sanctions as either threat or actual imposition

Table 1. Descriptive Statistics, 1945-2006

Variable	Mean	Std. Dev.	Min.	Max
Leader removal	0.155	0.361	0	1
Sanctions	0.312	0.463	0	6.263398
Wealth	7187.50	12985.99	132.82	440898
Growth rate	0.020	0.124	-.7969239	6.440
Military capability	0.007	0.022	8.99e-06	0.319
Democracy	0.553	7.467	-10	10
Civil war	0.032	0.176	0	1
MID	0.103	0.304	0	1
Leader age	56.860	11.383	18	91
Office year	7.972	7.084	1	47
Office year2	113.734	221.133	1	2209
Office year3	2380.177	7306.474	1	103823

Table 2. Logit Analysis: Economic Sanctions and Leader Removal, 1945-2006

Variable	Model 1	Model 2
Sanctions: threat or imposition	-0.132 (0.111)	
Sanctions: threat only		-0.059 (0.135)
Sanctions: imposition only		-0.268 (0.175)
Sanctions: threat and imposition		-0.102 (0.137)
Leader age	0.020*** (0.006)	0.020*** (0.006)
Office year	0.028 (0.045)	0.029 (0.045)
Office year2	-0.003 (0.003)	-0.004 (0.003)
Office year3	0.000 (0.000)	0.000 (0.000)
N	7434	7434
Log Likelihood	-2549.82	-2549.011
* p < 0.05, ** p < 0.01, *** p < 0.001		

Note: Robust standard errors clustered by country are in parentheses.

made against a target country in a given year. The sanctions variable is not statistically significant with a negative coefficient sign. This negative sign suggests that economic sanctions help leader stay longer in power rather than hurt their political position. However, the insignificance of the estimated coefficient indicates that the power-enhancing effect of economic sanctions is not statistically meaningful. As for the time-related variables, age is statistically significant in the expected direction, suggesting that their chance to step down from political office increases as leaders get older over time. All the three polynomial terms for office years are insignificant, implying no serious concern for the presence of the temporal dependence in our binary time-series cross-sectional analysis. The F test for joint significance also fails to reject the null hypothesis that these three temporal controls have no impact on leader tenure.

In Model 2, we distinguish economic sanctions as three types: (1) threat made without actual imposition, (2) imposition made without threat, and (3) both threat and imposition made. We call them (1) sanctions: threat only, (2) sanctions: imposition only, and (3) sanctions: threat and imposition, respectively. The reference category refers to the case that neither threat nor imposition in any sort was not made upon a country in a given year. None of the three sanction categories is statistically significant at any level, suggesting that economic sanctions do not affect targeted leaders' grasp on power in any forms whether a

Table 3. Logit Analysis: Economic Sanctions and Leader Removal, 1945-2006

Variable	Model 3	Model 4
Sanctions: threat or imposition	-0.059 (0.113)	
Sanctions: threat only		-0.097 (0.159)
Sanctions: imposition only		-0.175 (0.176)
Sanctions: threat and imposition		0.033 (0.137)
Wealth	1.93e-07 (7.07e-07)	4.68e-07 (6.88e-06)
Growth rate	-1.121* (0.460)	-1.112* (0.461)
MID	4.462 (4.532)	4.240 (4.655)
Democracy	0.074*** (0.015)	0.074*** (0.015)
Civil war	-0.293 (0.304)	-0.296 (0.305)
MID	-0.144 (0.153)	-0.141 (0.153)
Leader age	0.016* (0.006)	0.156* (0.006)
Office year	0.066 (0.050)	0.066 (0.051)
Office year2	-0.004 (0.003)	-0.004 (0.003)
Office year3	0.000 (0.000)	0.000 (0.000)
N	6206	6206
Log Likelihood	-2112.589	-2111.805
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$		

Note: Robust standard errors clustered by country are in parentheses.

threat of sanctions made or sanctions are actually imposed.

In Table 3, we retest the impact of economic sanctions on leader removal in multiple regression settings, controlling for the effects of other important correlates. The temporal domain of this multiple regression analysis becomes 1951 to 2006 due to the availability of macro-economic data such as GDP and Growth. In Model 3, economic sanctions are not statistically significant, with a negative sign. Indeed, sanctions do not appear to affect the

Table 4. Interactive Logit Analysis: Sanctions, Democracy, and Leader Removal, 1945-2006

Variable	Model 5 Logit
Sanctions (threat or imposition)	-0.176 (0.122)
Democracy	0.065*** (0.015)
Sanctions × Democracy	0.032* (0.015)
Wealth	-1.50e-06 (7.83e-06)
Growth rate	-1.111* (0.463)
Military capability	4.205 (4.414)
Civil war	-0.281 (0.303)
MID	-0.141 (0.152)
Leader age	0.016* (0.006)
Office year	0.068 (0.050)
Office year2	-0.004 (0.003)
Office year3	0.000 (0.000)
N	6206
Log Likelihood	-2109.760
*p<0.05, **p<0.01, ***p<0.001	

Note: Robust standard errors clustered by country are in parentheses.

political survival of leaders. This null effect holds for the more detailed specification of the sanctions measure in Model 4. No matter whether a threat of sanctions or an actual imposition is made against a government, its leader is no more or less likely to lose power.

As for the control variables, growth rate, democracy, and leader age appear to be only three significant factors that influence the political wellbeing of incumbent leaders across countries. Growth rate has a significant negative impact on leader removal, indicating that the annual risk of losing power for an incumbent is reduced as the national economy grows faster. The significant positive coefficient for democracy suggests that leaders in democracies tend to have shorter tenure than those in autocracies. The impact of leader age is significant and positive, implying that the annual likelihood of leader removal increases as the age of an incumbent increases over time.

Table 4 shows the result for the interaction effect of economic sanctions and regime type. The estimated coefficient for the first order term, sanctions, refers to the average effect of economic sanctions for anocratic countries with the polity score of 0.[7] Although insignificant, the negative coefficient suggests that leaders in nondemocratic countries politically benefit from economic sanctions rather than they hurt. When sanctions are imposed on nondemocratic countries, incumbent leaders tend to have a lower likelihood of losing power than when no sanctions are imposed. The second order term, sanctions×democracy, has a significant positive coefficient sign, indicating that the negative effect of economic sanctions on the removal of incumbent leaders is attenuated by democratic regime. In other words,

[7] Countries can be neither democracies nor autocracies, rather being between these two types. These countries are called as anocracies. This trichotomous categorization of political regime has been increasingly popular in the literature (Gurr 1974; Maoz and Abdolali 1989; Vreeland 2008).

Table 5. The Interactive Coefficients for Sanctions Varying across the Values of Democracy

Democracy	based on Model 5		
	Coefficient	90% CIs.	
-10	-0.494	-0.878	-0.111
-9	-0.462	-0.824	-0.100
-8	-0.431	-0.771	-0.091
-7	-0.399	-0.718	-0.080
-6	-0.367	-0.666	-0.068
-5	-0.335	-0.614	-0.056
-4	-0.303	-0.564	-0.043
-3	-0.272	-0.514	-0.029
-2	-0.240	-0.467	-0.013
-1	-0.208	-0.421	0.005
0	-0.176	-0.377	0.025
1	-0.144	-0.336	0.047
2	-0.112	-0.298	0.073
3	-0.081	-0.263	0.102
4	-0.049	-0.232	0.134
5	-0.017	-0.204	0.170
6	0.015	-0.179	0.209
7	0.047	-0.157	0.251
8	0.079	-0.138	0.295
9	0.110	-0.121	0.341
10	0.142	-0.105	0.390

democratic political institutions condition the effect of economic sanctions on leader removal. To show more specifically how the effect of economic sanctions on leader removal changes across the different levels of democracy and autocracy (Brauemoeller 2004; Brambor, Clark, and Golder 2006), we calculate each of all the corresponding interactive coefficients for economic sanctions across all the 21 points of the polity score from -10 to 10 by using the lincom command in Stata 15.

The results appear in the second, third, and fourth columns in Table 5 with the 90% confidence intervals. The estimated coefficients for economic sanctions are significant and negative for countries with the policy scores from -10 to -2, as the corresponding 90%

confidence intervals do not include 0. This result indicates that economic sanctions appear to reduce the likelihood that targeted leaders lose political office in most types of autocratic countries. Put differently, economic sanctions do not destabilize, but rather enhance, incumbent leadership for most types of autocracies. This leadership-stabilizing effect of economic sanctions that we find here with autocratic countries corroborates Johan Galtung's claim made about 52 years ago. In his seminal study of the autocratic Rhodesian case (1967), he made a general argument that economic sanctions are ineffective in coercing targets and achieving senders' purposes. Rather, sanctions serve to activate hidden forces of the targeted societies as receiving nations try hard "to undo the damage and to restore the status quo ante" (Galtung 1967: 409). Ultimately, a targeted country will maintain the goals of its systems and even further reinforce them.

However, as for democracy, the target regime-reinforcing effect of sanctions is attenuated by receiving countries' levels of democracies. The coefficient for economic sanctions becomes insignificant at the polity score of -1 and its sign turns positive at the polity score of 6. The estimated positive coefficients for economic sanctions with high levels of the polity scores suggest that economic sanctions increase the probability of leader removal in highly democratic countries. However, this leadership-destabilizing effect is not statistically meaningful as the corresponding 90% confidence intervals for the positive sanctions coefficients always include 0 for democratic countries with the polity score of 6 or higher. Indeed, this interactive null effect appears as a function of political accountability (Marinov 2005). The levels of political accountability imposed upon the shoulders of incumbent leaders increase as the levels of democracy increase (Reiter and Stam 2002; Bueno de Mesquita et al. 2003). Therefore, democrats, when their governments are targeted by economic sanctions, face a greater probability to be asked to be responsible for the economic crisis and its resulting damage than autocrats. Therefore, the regime-reinforcing effect of sanctions and the possible rally-around-the-leader effect that can help leaders prolong their stay in office appear to be counterbalanced by the leadership-destabilizing effect of economic sanctions invoked by the higher levels of democratic accountability and the resulting electoral punishment. In sum, sanctions help targeted incumbent leadership in autocracies but leave no discernable political marks in democratic targets.

CONCLUSION

In this study, we have explored how the threat and imposition of sanctions can affect leadership stability and, more specifically, the removal of leaders from power. The expanded time period under consideration and our methodological approach has helped increase our understanding of the political consequences of economic sanctions.

Much scholarly attention has been paid to both economic sanctions and leadership survival, but there is still limited work exploring connections between the two (but see Escribà-Folch and Wright, 2010; Licht 2017; Marinov 2005). The increase in such research in more recent years is both encouraging and indicative that much work remains to be done in terms of developing a comprehensive understanding of the impacts of the threat and imposition of sanctions on leadership stability.

The present study helps advance this literature by examining the impact of the threat and imposition of sanctions on political leadership survival using a global sample from 1945-2006. Using conditional logistic models, we find no independent effects of either the threat

or imposition of sanctions on leader survival. However, using models that interact the effects of sanctions with democracy, we find that regime type conditions the effect of sanctions, with authoritarian leaders actually receiving a boost to their leadership from the use of sanctions against their countries.

Beyond building the academic literature, our study also has practical implications for states considering the use of sanctions as a political tool, especially against nondemocratic leaders. Sanctions are meant to be a punishment, and are often employed against nondemocratic countries in response to their "bad behavior" domestically and internationally. However, using economic sanctions against autocratic regimes backfires from the punishment perspective. Our interactive statistical result suggests that economic coercion and resulting damage actually help targeted autocrats to shore up their position and stay longer in power. In case of democratic targets, sanctions do not help targeted democrats hold their power. Rather, we think imposing sanctions on poor democratic countries may make their leaders more likely lose office, perhaps to political challengers who are much less democratically inclined. Insofar as international leaders are also concerned about democratic stability, punishing democratic leaders with sanctions can cause another serious problem, "de-democratization." This suggests that the international community may need to rethink its use of sanctions depending on what their ultimate goal is.

Finally, our study also raises puzzles that should be explored in future research. Given the disparate findings for democratic and nondemocratic leaders, it should be fruitful to examine how sanctions influence regime change. Do democratic leaders who lose power as a result of sanctions turn the government over to fellow democratically-oriented leaders, or do their removals usher in periods of increased autocratization? Likewise, with respect to autocrats, although they are less likely to lose power as a result of sanctions, should they do so, who takes their place? Another dictator, or democratic reformers? These are the questions worth exploring in future research. Another ramification of our present study is to look at how sanctions differently affect targeted incumbent leadership across levels of wealth and industrialization as well as regime types. A three-way interaction framework of regime type, wealth, and sanction can be developed to examine how they interact in affecting leadership destabilization or stabilization.

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